

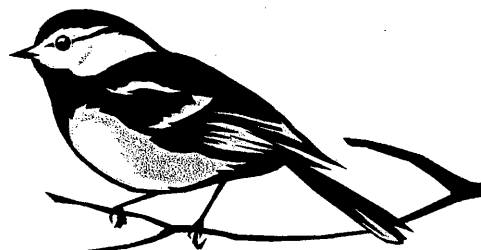
The Birds Species of Hopewell Culture Historical National Park, Ross County, Ohio

A Biological Survey for the National Park System

By

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October 7, 2000



Hopewell Culture Historical National Park

Bird Survey

The following data was collected from 8/00 to 10/00 at the Hopewell cultural Historical Park for the purpose of conducting a biological survey on the population of bird species in the area.

Summery:

A biological survey was conducted at the Hopewell Culture Historical National Park sites Mound City and Hopeton. The study was conducted during the months of 8/00 and 9/00 for the purposes of identifying bird species and the frequency of the populations within the park. During the two months of bird observation, 58 species were positively identified at the Mound City sight and 58 species at the Hopeton site. These listed species included some migratory birds in the month of September that were using the Mississippi fly away. The Mississippi fly away is a migratory path that goes though Ohio. During both months of the study, juveniles of most species were observed. This is evidence that Mound City and Hopeton are breeding areas for several species. Percentage results reflected a diverse species frequency and a high probability of sighting most of the species. Most bird species were previously predicted to be in the area.

Acknowledgments:

I would like to thank Joe McMahon , a volunteer of Hopewell Culture Historical national park and Scioto Valley Bird and Nature Club for all of his bird and computer knowledge. I would also like to thank Biological Technician, Constance Jones for all of her bird expertise. Extended thanks to all employees f Hopewell Culture Historical National Park

Introduction:

Natural History;

The site areas randomly chosen for this survey were Mound City and Hopeton. Both areas are historical sites of ceremonial mounds from the Hopewell culture.

Mound City:

Mound City is located in Union Township Chillicothe, Ohio. It measures approximately 120 acres. The area consists of roughly 1/3 deciduous forest, 1/3 mowed mound area, and 1/3 periodically mowed agricultural fields. The deciduous forest almost completely encircles the mowed mound area. A 1-mile trail leads through the forested region and (for a short period) proceeds along the bank of the Scioto River. The Scioto River is the eastern boundary for Mound City.

Hopeton:

Hopeton is located on the east bank of the Scioto River directly across the bank form Mound City. Hopeton is located in Springfield Township. It consists of 293 acres. Approximately 230 acres of the land is agricultural fields for producing soybeans. Mixed deciduous forest and shrubby areas occupy approximately 36 acres of Hopeton. A large lake for washing gravel of a nearby gravel mining company is on the west edge of the unit. This is an attraction for migrating shore birds. A small stream also runs though the southeast side of Hopeton.

Methods:

The data was collected by observing birds on random days throughout the two months. The birds were identified by sight or by call. Only positive identifications were used as data. The Audubon bird guide was used for identification help. Mound city bird observation was mostly conducted while walking the nature trail. Hopeton data was collected while traveling through the area in an automobile. The data and results were then separated into three appendixes.

Appendix I

The first appendix is a list of all the bird species seen at each location. The list includes common named, scientific name in alphabetical order of common names.

Appendix II

The second appendix shows the raw data. The dates of each observation day and the bird species' common and scientific name seen on that day are shown along with their AOU number. The AOU number is a number given to each species of bird and represents its phylogenetic order. AOU is an acronym for the American Ornithological Union. AOU can be thought of as the number that reflects the species order in evolution. The lower the AOU number; the more primitive the species. The Rock Dove and the Bobwhite Quail do not have assigned AOU. The Rock Dove is considered an escaped domestic species and the Bobwhite quail is considered a game bird. The Ornithological Society does not give these species AOU numbers.

An X shows that the species was seen on the specified day. The total number of times a species was seen during the observation months is located in the TOTAL column.

Appendix III

Appendix III shows the percentage results calculated at each sight. The two percentage results shown in this survey are Frequency Percentage and Sighting Percentage. Percent frequency refers to the percentage of times a species was seen during the observation days. It reflects the percent of times a species was seen. The equation used for the calculation is:

$$(\text{\#of times a species was seen} / \text{\#of observation days}) \times 100.$$

The percent sighting refers to how many times a species was seen compared to the number of other species. It reflects the population of one species compared to another. The equation used is:

$$(\text{\#of times a species was seen} / \text{all bird species seen}) \times 100.$$

Additional Notes:

The bird species observed in Mound City and Hopeton are species customary to Ross County and southern Ohio. Many migratory birds travel through both areas and some species use the area for breeding.

The following survey should only be used as a reference base to the bird species in Mound City and Hopeton due to the short observation period and the exclusion of night species. Each observation day was recorded in the field by hand and includes the weather for each day. Copies of original field notes are available. Any copies of this survey or any additional questions, please contact

Jocelyn MacArthur at (614) 760-0022 or e-mail josiemac24@hotmail.com.

Appendix I

Mound City Bird Species

Common Name

Scientific Name

American Crow

Corvus brachyrhynchos

American Goldfinch

Carduelis tristis

American Robin

Turdus migratorius

Bald Eagle

Haliaeetus leucocephalus

Bank Swallow

Riparia riparia

Belted Kingfisher

Ceryle alcyon

Black Vulture

Cathartes aura

Black-and-white Warbler

Mniotilta varia

Black-billed Cuckoo

Coccyzus erythrophthalmus

Blue Jay

Cyanocitta cristata

Blue-grey Gnatcatcher

Poliophtila caerulea

Broad-winged Hawk

Buteo platypterus

Brown Creeper

Certhia americana

Brown-headed Cowbird

Molothrus ater

Canada Goose

Branta Canadensis

Carolina Chickadee

Parus carolinensis

Carolina Wren

Thryothorus ludovicianus

Cedar Waxwing

Bombycilla cedrorum

Chipping Sparrow

Spizella passerina

Common Grackle

Quiscalus major

Cooper's Hawk

Accipiter cooperii

Downy Woodpecker

Picoides pubescens

Eastern Bluebird

Sialia sialis

Eastern Kingbird

Tyrannus tyrannus

Eastern Wood Pewee

Contopus virens

European Starling

Sturnus vulgaris

Fox Sparrow

Passerella iliaca

Gray Catbird

Dumetella carolinensis

Great Crested Flycatcher

Myiarchus crinitus

Hairy Woodpecker

Picoides villosus

House Sparrow

Passer domesticus

Killdeer

Charadrius vociferus

Mourning Dove

Zenaida macroura

Northern Flicker

Colaptes auratus

Mound City Bird Species cont..

Common Name

Northern Cardinal
 Northern Mockingbird
 Northern Oriole
 Northern Rough-winged Swallow
 Orchard Oriole
 Ovenbird
 Pileated Woodpecker
 Prothonotary Warbler
 Red-bellied Woodpecker
 Red-eyed Vireo
 Red-tailed Hawk
 Red-winged Blackbird
 Tree Swallow
 Tufted Titmouse
 Turkey Vulture
 Warbling Vireo
 White-breasted Nuthatch
 White-eyed Vireo
 Wilson's Warbler
 Wood Thrush
 Yellow -bellied Flycatcher
 Yellow breasted Chat
 Yellow Warbler
 Yellow-bellied Sapsucker
 Yellow-billed Cuckoo
 Yellow-throated Vireo

Scientific Name

Cardinalis cardinalis
Mimus polyglottos
Icterus galbula
Stelgidopteryx serripennis
Icterus spurius
Seiurus aurocapillus
Dryocopus pileatus
Protonotaria citrea
Melanerpes carolinus
Vireo olivaceus
Buteo jamaicensis
Agelaius phoeniceus
Tachycineta bicolor
Parus bicolor
Cathartes aura
Vireo gilvus
Sitta carolinensis
Vireo griseus
Wilsonia pusilla
Hylocichla mustelina
Empidonax flaviventris
Icteria virens
Dendroica petechia
Sphyrapicus varius
Coccyzus americanus
Vireo flavifrons

Appendix I cont.

Hopeton Bird Species

Common Name	Scientific Name
American Crow	<i>Corvus brachyrhynchos</i>
American Goldfinch	<i>Carduelis tristis</i>
American Kestrel	<i>Falco sparverius</i>
American Robin	<i>Turdus migratorius</i>
Barn Swallow	<i>Hirundo rustica</i>
Belted Kingfisher	<i>Ceryle alcyon</i>
Black Vulture	<i>Coragyps atratus</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Blue Jay	<i>Cyanocitta cristata</i>
Blue-grey Gnatcatcher	<i>Poliophtila caerulea</i>
Brown Thrasher	<i>Toxostoma rufum</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Carolina Chickadee	<i>Parus carolinensis</i>
Chipping Sparrow	<i>Spizella passerina</i>
Common Grackle	<i>Quiscalus major</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Eastern Bluebird	<i>Sialia sialis</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Eastern Meadowlark	<i>Sturnella magna</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
European Starling	<i>Sturnus vulgaris</i>
Field Sparrow	<i>Spizella pusilla</i>
Fox Sparrow	<i>Passerella iliaca</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Egret	<i>Casmerodius albus</i>
House Finch	<i>Carpodacus mexicanus</i>
House Sparrow	<i>Passer domesticus</i>
Indigo Bunting	<i>Passerina cyanea</i>
Killdeer	<i>Charadrius vociferus</i>
Mallard	<i>Anas platyrhynchos</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Bobwhite	<i>Colinus virginianus</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Northern Oriole	<i>Icterus galbula</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Rock Dove	<i>Columba livia</i>
Rough-legged Hawk	<i>Buteo lagopus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Song Sparrow	<i>Melospiza melodia</i>

Hopeton Bird Species cont..

Common Name

Tree Swallow
Tufted Titmouse
Turkey Vulture
White-eyed Vireo
Yellow-bellied Flycatcher

Species Name

Tachycineta bicolor
Parus bicolor
Cathartes aura
Vireo griseus
Empidonax flaviventris

Appendix II

Mound City: Raw Data

Common Name	Scientific Name	AOU #	08/03/2000	08/04/2000	08/06/2000	08/09/2000	08/11/2000	08/13/2000	08/24/2000	08/30/2000	08/31/2000	09/01/2000	09/03/2000	09/03/2000	09/07/2000	09/09/2000	09/10/2000	09/13/2000	09/15/2000	09/17/2000	09/22/2000	09/28/2000	TOTAL
American Crow	<i>Corvus brachyrhynchos</i>	488	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x			18
American Goldfinch	<i>Carduelis tristis</i>	529	x	x	x	x		x	x		x	x		x	x	x	x				x	x	14
American Robin	<i>Turdus migratorius</i>	761			x		x	x		x	x	x	x	x			x					x	10
Bald Eagle	<i>Haliaeetus leucocephalus</i>	352							x									x					2
Bank Swallow	<i>Riparia riparia</i>	616			x				x						x								3
Belted Kingfisher	<i>Ceryle alcyon</i>	390												x									1
Black Vulture	<i>Cathartes aura</i>	326										x					x						2
Black-and-white Warbler	<i>Mniotilta varia</i>	636																				x	1
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	388				x								x									2
Blue Jay	<i>Cyanocitta cristata</i>	477	x	x	x	x	x		x	x	x	x	x	x	x			x	x	x	x	x	17
Blue-grey Gnatcatcher	<i>Poliophtila caerulea</i>	751													x						x		2
Broad-winged Hawk	<i>Buteo platypterus</i>	343									x												1
Brown Creeper	<i>Certhia americana</i>	726	x			x	x																3
Brown-headed Cowbird	<i>Molothrus ater</i>	495		x		x				x				x								x	5
Canada Goose	<i>Branta Canadensis</i>	172													x			x	x	x			4
Carolina Chickadee	<i>Parus carolinensis</i>	736	x	x	x	x		x	x	x		x	x	x	x		x	x	x	x		x	16
Carolina Wren	<i>Thryothorus ludovicianus</i>	718				x				x		x	x		x		x	x	x	x		x	10
Ceder Waxwing	<i>Bombycilla cedrorum</i>	619										x	x	x	x		x	x		x			7
Chipping Sparrow	<i>Spizella passerina</i>	560			x	x															x		3
Common Grackle	<i>Quiscalus major</i>	511	x	x	x	x		x	x		x	x					x				x		10
Cooper's Hawk	<i>Accipiter cooperii</i>	333									x												1
Downy Woodpecker	<i>Picoides pubescens</i>	393		x	x		x				x		x		x			x		x		x	9
Eastern Bluebird	<i>Sialia sialis</i>	766																	x	x	x	x	4
Eastern Kingbird	<i>Tyrannus tyrannus</i>	444																				x	1
Eastern Wood Pewee	<i>Contopus virens</i>	461	x	x				x				x	x					x		x	x	x	9

Mound City: Raw Data Cont..

Common Name	Scientific Name		08/03/2000	08/04/2000	08/06/2000	08/09/2000	08/11/2000	08/13/2000	08/24/2000	08/30/2000	08/31/2000	09/01/2000	09/03/2000	09/03/2000	09/07/2000	09/09/2000	09/10/2000	09/13/2000	09/15/2000	09/17/2000	09/22/2000	09/28/2000	TOTAL
European Starling	<i>Sturnus vulgaris</i>	493	x		x	x			x	x	x	x	x		x	x	x	x	x	x	x	x	16
Fox Sparrow	<i>Passerella iliaca</i>	585													x								1
Gray Catbird	<i>Dumetella carolinensis</i>	704						x									x				x		3
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	452		x			x	x			x									x			5
Hairy Woodpecker	<i>Picoides villosus</i>	394			x			x					x										3
House Sparrow	<i>Passer domesticus</i>	688.2		x	x	x		x		x			x				x			x	x		9
Killdeer	<i>Charadrius vociferus</i>	273			x																		1
Mourning Dove	<i>Zenaida macroura</i>	316		x	x	x		x			x	x	x	x	x	x	x	x		x	x	x	15
Northern Flicker	<i>Colaptes auratus</i>	412	x			x	x	x	x					x	x			x			x	x	10
Northern Cardinal	<i>Cardinalis cardinalis</i>	593	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	19
Northern Mockingbird	<i>Mimus polyglottos</i>	703													x			x					2
Northern Oriole	<i>Icterus galbula</i>	507	x	x			x	x			x		x										6
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	617			x				x				x	x	x			x		x			7
Orchard Oriole	<i>Icterus spurius</i>	506						x															1
Ovenbird	<i>Seiurus aurocapillus</i>	674		x																			1
Pileated Woodpecker	<i>Dryocopus pileatus</i>	405								x				x						x	x		4
Prothonotary Warbler	<i>Protonotaria citrea</i>	637							x										x	x			3
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	409								x												x	2
Red-eyed Vireo	<i>Vireo olivaceus</i>	624																	x				1
Red-tailed Hawk	<i>Buteo jamaicensis</i>	337				x	x		x					x	x			x			x	x	8
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	498		x	x																		2
Tree Swallow	<i>Tachycineta bicolor</i>	614		x														x					2
Tufted Titmouse	<i>Parus bicolor</i>	731		x	x			x	x	x			x	x	x		x	x		x	x	x	13
Turkey Vulture	<i>Cathartes aura</i>	325		x	x									x	x			x	x	x	x	x	9
Warbling Vireo	<i>Vireo gilvus</i>	627						x															1
White-breasted Nuthatch	<i>Sitta carolinensis</i>	727		x	x			x					x	x	x	x	x			x	x	x	11
White-eyed Vireo	<i>Vireo griseus</i>	631		x						x			x	x	x				x		x		7
Wilson's Warbler	<i>Wilsonia pusilla</i>	685												x							x		2
Wood Thrush	<i>Hylocichla mustelina</i>	755											x					x	x				3

[illegible]

	463	683	652	402	387	628
08/03/2000					X	
08/04/2000				X	X	X
08/06/2000						
08/09/2000						
08/11/2000						
08/13/2000						X
08/24/2000			X			
08/30/2000						
08/31/2000				X	X	
09/01/2000						
09/03/2000	X					
09/03/2000					X	
09/07/2000		X				X
09/09/2000						
09/10/2000						X
09/13/2000				X		
09/15/2000						
09/17/2000						
09/22/2000					X	
09/28/2000				X		
TOTAL	1	1	1	4	5	4
	329					

Hopeton: Raw Data

[illegible]

Common Name	Scientific Name
House Finch	<i>Carpodacus mexicanus</i>
House Sparrow	<i>Passer domesticus</i>
Indigo Bunting	<i>Passerina cyanea</i>
Killdeer	<i>Charadrius vociferus</i>
Mallard	<i>Anas platyrhynchos</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Bobwhite	<i>Colinus virginianus</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Northern Oriole	<i>Icterus galbula</i>
Northern Rough-winged Swallow	<i>Stergopteryx serripennis</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Rock Dove	<i>Columba livia</i>
Rough-legged Hawk	<i>Buteo lagopus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Song Sparrow	<i>Melospiza melodia</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Tufted Titmouse	<i>Parus bicolor</i>
Turkey Vulture	<i>Cathartes aura</i>
White-eyed Vireo	<i>Vireo griseus</i>
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>

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Appendix III

Mound City: Percentage Results

Common Name	Scientific Name	PERCENT FREQUENCY	PERCENT T SIGHTINGS
American Crow	<i>Corvus brachyrhynchos</i>	90.0	5.4
American Goldfinch	<i>Carduelis tristis</i>	70.0	4.2
American Robin	<i>Turdus migratorius</i>	50.0	3.0
Bald Eagle	<i>Haliaeetus leucocephalus</i>	10.0	0.6
Bank Swallow	<i>Riparia riparia</i>	15.0	0.9
Belted Kingfisher	<i>Ceryle alcyon</i>	5.0	0.3
Black Vulture	<i>Cathartes aura</i>	10.0	0.6
Black-and-white Warbler	<i>Mniotilta varia</i>	5.0	0.3
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	10.0	0.6
Blue Jay	<i>Cyanocitta cristata</i>	85.0	5.1
Blue-grey Gnatcatcher	<i>Poliophtila caerulea</i>	10.0	0.6
Broad-winged Hawk	<i>Buteo platypterus</i>	5.0	0.3
Brown Creeper	<i>Certhia americana</i>	15.0	0.9
Brown-headed Cowbird	<i>Molothrus ater</i>	25.0	1.5
Canada Goose	<i>Branta Canadensis</i>	20.0	1.2
Carolina Chickadee	<i>Parus carolinensis</i>	80.0	4.8
Carolina Wren	<i>Thryothorus ludovicianus</i>	50.0	3.0
Cedar Waxwing	<i>Bombycilla cedrorum</i>	35.0	2.1
Chipping Sparrow	<i>Spizella passerina</i>	15.0	0.9
Common Grackle	<i>Quiscalus major</i>	50.0	3.0
Cooper's Hawk	<i>Accipiter cooperii</i>	5.0	0.3
Downy Woodpecker	<i>Picoides pubescens</i>	45.0	2.7
Eastern Bluebird	<i>Sialia sialis</i>	20.0	1.2
Eastern Kingbird	<i>Tyrannus tyrannus</i>	5.0	0.3
Eastern Wood Pewee	<i>Contopus virens</i>	45.0	2.7
European Starling	<i>Sturnus vulgaris</i>	80.0	4.8
Fox Sparrow	<i>Passerella iliaca</i>	5.0	0.3
Gray Catbird	<i>Dumetella carolinensis</i>	15.0	0.9
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	25.0	1.5
Hairy Woodpecker	<i>Picoides villosus</i>	15.0	0.9
House Sparrow	<i>Passer domesticus</i>	45.0	2.7
Killdeer	<i>Charadrius vociferus</i>	5.0	0.3
Mourning Dove	<i>Zenaida macroura</i>	75.0	4.5
Northern Flicker	<i>Colaptes auratus</i>	50.0	3.0
Northern Cardinal	<i>Cardinalis cardinalis</i>	95.0	5.7
Northern Mockingbird	<i>Mimus polyglottos</i>	10.0	0.6
Northern Oriole	<i>Icterus galbula</i>	30.0	1.8
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	35.0	2.1
Orchard Oriole	<i>Icterus spurius</i>	5.0	0.3
Ovenbird	<i>Seiurus aurocapillus</i>	5.0	0.3
Pileated Woodpecker	<i>Dryocopus pileatus</i>	20.0	1.2
Prothonotary Warbler	<i>Protonotaria citrea</i>	15.0	0.9
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	10.0	0.6

Mound City: Percentage Results

Red-eyed Vireo	<i>Vireo olivaceus</i>	5.0	0.3
Red-tailed Hawk	<i>Buteo jamaicensis</i>	40.0	2.4
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	10.0	0.6
Tree Swallow	<i>Tachycineta bicolor</i>	10.0	0.6
Tufted Titmouse	<i>Parus bicolor</i>	65.0	3.9
Turkey Vulture	<i>Cathartes aura</i>	45.0	2.7
Warbling Vireo	<i>Vireo gilvus</i>	5.0	0.3
White-breasted Nuthatch	<i>Sitta carolinensis</i>	55.0	3.3
White-eyed Vireo	<i>Vireo griseus</i>	35.0	2.1
Wilson's Warbler	<i>Wilsonia pusilla</i>	10.0	0.6
Wood Thrush	<i>Hylocichla mustelina</i>	15.0	0.9
Yellow -bellied Flycatcher	<i>Empidonax flaviventris</i>	5.0	0.3
Yellow breasted Chat	<i>Icteria virens</i>	5.0	0.3
Yellow Warbler	<i>Dendroica petechia</i>	5.0	0.3
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	20.0	1.2
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	25.0	1.5
Yellow-throated Vireo	<i>Vireo flavifrons</i>	20.0	1.2

Appenex III cont..

Hopeton: Percentage Results

Common Name	Scientific Name	PERCENT FREQUENCY	PERCENT SIGHTINGS
American Crow	<i>Corvus brachyrhynchos</i>	68.8	5.1
American Goldfinch	<i>Carduelis tristis</i>	50.0	3.7
American Kestrel	<i>Falco sparverius</i>	62.5	4.7
American Robin	<i>Turdus migratorius</i>	50.0	3.7
Barn Swallow	<i>Hirundo rustica</i>	25.0	1.9
Belted Kingfisher	<i>Ceryle alcyon</i>	12.5	0.9
Black Vulture	<i>Coragyps atratus</i>	12.5	0.9
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	6.3	0.5
Blue Jay	<i>Cyanocitta cristata</i>	43.8	3.3
Blue-grey Gnatcatcher	<i>Poliophtila caerulea</i>	6.3	0.5
Brown Thrasher	<i>Toxostoma rufum</i>	6.3	0.5
Brown-headed Cowbird	<i>Molothrus ater</i>	25.0	1.9
Carolina Chickadee	<i>Parus carolinensis</i>	37.5	2.8
Chipping Sparrow	<i>Spizella passerina</i>	6.3	0.5
Common Grackle	<i>Quiscalus major</i>	25.0	1.9
Cooper's Hawk	<i>Accipiter cooperii</i>	6.3	0.5
Eastern Bluebird	<i>Sialia sialis</i>	31.3	2.3
Eastern Kingbird	<i>Tyrannus tyrannus</i>	12.5	0.9
Eastern Meadowlark	<i>Sturnella magna</i>	75.0	5.6
Eastern Phoebe	<i>Sayornis phoebe</i>	12.5	0.9
European Starling	<i>Sturnus vulgaris</i>	75.0	5.6
Field Sparrow	<i>Spizella pusilla</i>	56.3	4.2
Fox Sparrow	<i>Passerella iliaca</i>	12.5	0.9
Gray Catbird	<i>Dumetella carolinensis</i>	43.8	3.3
Great Blue Heron	<i>Ardea herodias</i>	18.8	1.4
Great Egret	<i>Casmerodius albus</i>	6.3	0.5
House Finch	<i>Carpodacus mexicanus</i>	12.5	0.9
House Sparrow	<i>Passer domesticus</i>	12.5	0.9
Indigo Bunting	<i>Passerina cyanea</i>	37.5	2.8
Killdeer	<i>Charadrius vociferus</i>	93.8	7.0
Mallard	<i>Anas platyrhynchos</i>	43.8	3.3
Mourning Dove	<i>Zenaida macroura</i>	93.8	7.0
Northern Bobwhite	<i>Colinus virginianus</i>	12.5	0.9
Northern Cardinal	<i>Cardinalis cardinalis</i>	75.0	5.6
Northern Flicker	<i>Colaptes auratus</i>	18.8	1.4
Northern Mockingbird	<i>Mimus polyglottos</i>	25.0	1.9

Hopeton: Percentage Results

Northern Oriole	<i>Icterus galbula</i>	6.3	0.5
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	43.8	3.3
Red-tailed Hawk	<i>Buteo jamaicensis</i>	62.5	4.7
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	12.5	0.9
Rock Dove	<i>Columba livia</i>	18.8	1.4
Rough-legged Hawk	<i>Buteo lagopus</i>	6.3	0.5
Sharp-shinned Hawk	<i>Accipiter striatus</i>	6.3	0.5
Song Sparrow	<i>Melospiza melodia</i>	12.5	0.9
Tree Swallow	<i>Tachycineta bicolor</i>	6.3	0.5
Tufted Titmouse	<i>Parus bicolor</i>	18.8	1.4
Turkey Vulture	<i>Cathartes aura</i>	56.3	4.2
White-eyed Vireo	<i>Vireo griseus</i>	6.3	0.5
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	6.3	0.5